

Patent Claims:

1. A locating device, particularly for locating trapped victims under avalanches, under debris or under collapsed buildings, comprising a receiving unit for signals from transmitters, preferably a transmitter connected to three preferably orthogonally arranged rod antennas, optical and/or acoustic display units, wherein all antennas (2, 3, 4) are placed in a compact housing together with the receiving unit (6-13) and preferably also a transmitter (13, 14) whereby one antenna (4) is of shorter length than the other two antennas (2, 3).

2. A locating device according to claim 1, wherein the antenna (4) of shorter length is maximally half as long as a longest antenna (2) of the locating device.

3. A locating device according to claim 2, wherein the antenna of shorter length is about one quarter the length of the longest antenna.

4. A locating device according to claim 1, wherein the receiving unit is provided with a DSP module (digital signal processor module) (11) for incoming signals of the antennas (2, 3, 4).

5. A locating device according to claim 4, wherein the receiving unit includes a subassembly for the transformation of incoming signals by way of fast Fourier transformation whereby said subassembly is integrated in the DSP module (11).

6. A locating device according to claim 1, wherein additional components selected from the group consisting of altimeter, thermometer and compass are integrated.

7. A method for the operation of a locating device, particularly for locating trapped victims under avalanches, under debris or under collapsed buildings whereby incoming signals of one or several transmitters are monitored by a receiving unit, wherein all received

incoming signals are registered over a predetermined period whereby discriminating characteristics of at least these incoming signals are registered and whereby the receiving unit can be tuned to one of these incoming signals with the aid of said characteristics.

8. A method according to claim 7, whereby an entire duration of one period of the incoming signal is used as discriminating characteristic.

9. A method according to claim 7, whereby a duration of a pulse or the time of transmission of the incoming signal is used as discriminating characteristic.

10. A method according to claim 7, whereby a duration of pause of the incoming signal is used as discriminating characteristic.

11. A method according to claim 7, whereby signal strength or amplitude of the incoming signal is used as discriminating characteristic.

12. A method according to claim 7, whereby a frequency of the incoming signal is used as discriminating characteristic.

13. A method according to claim 7, whereby previously monitored incoming signals are filtered out subsequent to reception of incoming control signals in the receiving unit.

14. A method according to claim 13, whereby the receiving unit is advantageously tuned to the remaining incoming signals with the aid of discriminating characteristic.

15. A method according to claim 7, whereby the characteristic of signals is determined by means of fast Fourier transformation.